

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – I • EXAMINATION – SUMMER • 2014

Subject Code: 210005

Date: 19-06-2014

Subject Name: Pharmaceutics-I

Time: 02:30 pm - 05:30 pm

Total Marks: 80

Instructions:

1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	(a)	With neat labeled diagram, described the principle, construction, working, advantage, disadvantage and use of cartridge filter	06
	(b)	Enlist the mechanisms of filtration and write the difference between surface and depth filtration	05
	(c)	Write a note on Filter Media and Filter Aids	05
Q.2	(a)	Explain the principle, construction, working, advantages and disadvantages with labeled diagram of falling film evaporator.	06
	(b)	Write a note on factor influencing rate of evaporation	05
	(c)	Write a note on Raoult's Law	05
Q.3	(a)	Define centrifugation. Explain theory of centrifugation	06
	(b)	Write a note on the centrifuge used to separate two immiscible liquid phases	05
	(c)	Give the pharmaceutical applications of centrifugation process	05
Q.4	(a)	Explain the principle, construction, working, advantages and disadvantages with labeled diagram of fluidized bed dryer (FBD).	06
	(b)	Explain rate of drying curve	05
	(c)	Define the following terms: EMC, FMC, % LOD, Drying rate and CMC	05
Q.5	(a)	Explain Humidity Chart with its Utility	06
	(b)	Draw the labeled diagram of refrigeration cycle and explain it	05
	(c)	Define following terms: Humidity, Percentage Humidity, Relative Percentage Humidity, Humid Heat and Humid Volume	05
Q. 6	(a)	Explain the principle, construction, working, advantages and disadvantages with labeled diagram of steam distillation.	06
	(b)	Define distillation. Write down its pharmaceutical application	05
	(c)	Describe the construction and working of a distillation apparatus for the preparation of distilled water	05
Q.7	(a)	Write a note on filter leaf	06
	(b)	Give the difference between multiple effect and single effect evaporator	05
	(c)	Write a note on freeze drying with its pharmaceutical application	05
